Drink Pouch Stomp Rocket

Kit contains:

- Juice drink
- Bendy straw
- Duct tape
- Paper

You will need: scissors, a pencil, tape and/or glue, and a tape measure (optional).

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INSTRUCTIONS

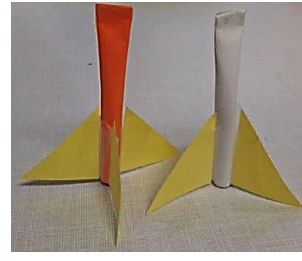
Step 1. Drink or drain your juice drink. Throw away the original straw. (It is too narrow, too pointy, and does not bend.)

Step 2: Trim the top off the empty drink pouch. Rinse thoroughly and then set aside to dry completely. (Waiting is the hardest part.)

Step 3. Use your scissors to make the straw hole a tiny bit bigger. Then insert the long end of the bendy straw.

Step 4. Use the longer piece of duct tape to seal the open top of the pouch. Use the smaller piece of duct tape to seal around the straw. Be careful not to squish the straw. That will restrict airflow.

Step 5. Make rockets. Wrap rectangles of paper around a pencil. Secure the tubes with glue or tape. Glue or tape the tops shut. Leave one rocket plain. Add paper fins to others.



Step 6. Launch! Inflate the pouch by blowing into the straw. Aim the straw in the desired direction, and slide on a rocket. Stomp down on the pouch to make it fly.

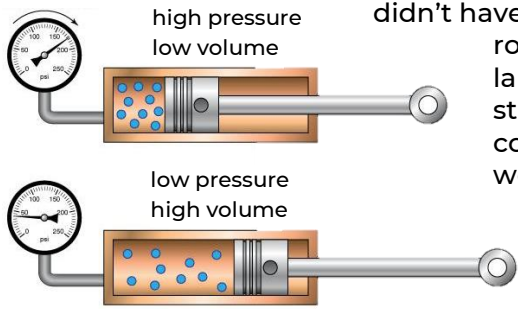
EXPERIMENT!

1. Launch a rocket with fins and a rocket without fins. Which works better?
2. Which of your rockets flies the best? Why?
3. How far did your rockets fly?
4. How high did your rockets fly?

WHAT'S GOING ON?

When you stomp on the pouch you compress, or squish, the air inside. This compressed air has to go somewhere, so it escapes through the easiest way out, which is the other end of the launcher. By placing the rocket over the other opening, this escaping air pushes it out of the way.

Increasing Pressure



If the compressed air didn't have an escape route, like the launching straw, the container would burst.